REMARKS

In response to the above-noted Office Action, Applicant has amended the title and specification as requested by the Examiner. Additionally, Claim 1 has been amended responsive to the rejection of Claims 1 and 2 under 35 U.S.C. 102(b) as being anticipated by Brandt et al., and has amended the withdrawn claims 3-34, to the extent necessary, to cause such claims to be drawn to the elected invention. Accordingly, it is requested that Claims 3-34 be changed from withdrawn status.

In response to the rejection under 35 U.S.C. 102, Applicant submits that the invention as now set out in the attached amended claims is not disclosed in U.S. 6128053. The heating device in the LCD display of U.S. 6128053 is an earlier device and there are a number of different design features in the present heater design, which extend beyond and are not present in U.S. 6128053.

U.S. 6128053 discloses a LCD device with two heaters. One heater for the active LC (Liquid Crystal) cell, one for the passive. The Examiner comments that heater element 11 is in the active LC cell (see Figure 2 of U.S. 6128053) and thus is not embedded in the dummy (passive) cell. Differences between heater 11 and the heater of the present invention include the need for additional layers of transparent insulation material in the cell (6 and 7 of Figure 1 of U.S. 6128053), the heating element having further insulating layer 10.

The key features of the internal heater design elements of the present invention are set out in the attached claims. The heater of the present invention is truly embedded in the dummy cell, as it is next to the LC itself. The LC cell has two substrate resistance layers inside and a perimeter seal and that seal is electrically conductive. The Applicants have developed a simplified design of an LCD with a dummy cell heater and the features of the perimeter seal contribute to this. The perimeter seal provides spacing for the LC substrates and is electrically conductive. The heater is controlled with electrodes that are secured to the heater layer with conductive adhesive. These features combine to provide good electrical conduction between the layers and the control of a uniform cell gap. There is no teaching of driving the dummy cell of the LCD in U.S. 6128053.

The apparatus of the present invention ensures that there is no unwanted triggering of the liquid crystal molecules because both the top and bottom transparent substrate layers are shorted electrically. This is described on pages 6 and 7 of the application as originally filed. (U.S.

6128053 addresses unwanted triggering by having zero potential difference set up between the top and bottom substrate layers.) An additional advantage of the present invention is that it requires two insulating layers (substrates) only for the whole LCD device, and when used in the specific embodiment of a DSTN device, does not require additional heaters as in U.S. 6128053. Thus the manufacturing of the heater design of the present invention is simpler than U.S. 6128053 which would be more complex, leading to drawbacks and more costly and complicated manufacture.

U.S. 6128053 addresses the problems of heating the LCD in a way different than that of the present invention. There is no teaching in U.S. 6128053 of electrical shorting of the dummy (passive) heater. Furthermore, U.S. 6128053 addresses the unwanted triggering of liquid crystal molecules with a different set up (zero potential difference) to that of the present invention and it is submitted that the skilled person would not consider adapting or changing the heater devices of U.S. 6128053. There is no indication in U.S. 6128053 of problems with that design that would lead to its adaptation and no teaching of how the skilled person could do so.

Accordingly, it is submitted that the cited prior art does not teach the invention as now claimed, nor would one skilled in the art be led to arrive at the present invention from the disclosure of U.S. 6128053 when considered alone or when taken in combination with the skilled person's general knowledge. It is submitted that claim 1 as amended is novel and inventive over the prior art, as are claims dependent thereon.

In view of the foregoing, it is submitted that all of the claims pending are patentably distinguishable over the prior art of record. Accordingly, reconsideration and withdrawal of the rejection of Claims 1 and 2 under 35 U.S.C. 102(b) is requested. It is further requested that Claims 3-34 be considered.

If there are any fees due in connection with the filing of this response, please charge those fees to our Deposit Account No. 02-2666. If a telephone interview would expedite the prosecution of this Application, the Examiner is invited to contact the undersigned at (310) 207-3800.